Transpiration Experiment

Adapted From:
https://muddysneakers.org/ms_science_exploration/transpiration-experiment

You will need:

- 2 Ziplock bags
- 2 different tactile labels
- 2 plastic measuring cups with wooden sticks
- Ruler
- Data log

This experiment will work best on a bright sunny day.

1. Choose two Ziploc bags and label them Plant 1 and Plant 2. You could write on the bag or use a tactile label.
2. Take the bags outside and find two different species of plants.
3. Place one bag over the leaves of Plant 1. Close the bag as tightly as you can without harming the plant or breaking the bag.
4. Do the same for Plant 2.
5. Leave the bags on the plants for at least 4 hours (but you can leave them longer).
6. Carefully remove the bag from Plant 1. Try not to damage the plant or spill the contents of the bag.
7. Carefully pour the water from the bag into the plastic measuring cup. Place the wooden stick in the cup to determine the height of the water in the cup.
8. Repeat for Plant 2.
9. Compare the amount of water collected from Plant 1 and Plant 2.

Plant 1 Observations Log

Tactile Label	
Description of plant	
Observations	

Plant 2 Observations Log

Tactile Label	
Description of plant	
Observations	

Transpired Water Collection Log

Compare the height of water on the wooden sticks you placed in the measuring cups. Write a description or mark the page to show the length of the wet portion of each stick.

Plant 1	
Plant 2	

Reflection Questions:

1. Did transpiration occur? What is your evidence?
2. Did one plant transpire more than the other? If one transpired more than the other, why do you think that happened?
3. What changes could you make to your experiment in order to get different results?
4. How do you think the sun affected your results?